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Masculinity, Femininity, and Transsexualism

Anna Herman-Jeglińska, M.Sc.,[1,2] **Anna Grabowska, Ph.D.,**[1,4] **and Stanisław Dulko, Ph.D.**[3]

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This study examined the relationship between sex role and gender identity in a Polish transsexual population where, unlike in Western countries, male-to-female (MF) transsexualism is much less common than female-to-male (FM) transsexualism. One hundred and three FM (82 primary, 21 secondary) and 29 MF (16 primary, 13 secondary) transsexuals plus 135 control males (CM) and 303 control females (CF) completed a Sex Role Inventory, which measures sex-role identification, that is, the degree to which one self-identifies with masculine and feminine characteristics. Data obtained from primary transsexuals revealed that, on a femininity scale, MF transsexuals scores exceeded not only CM but also CF. On a masculinity scale, MF transsexuals rated themselves significantly lower than CM, but at a level comparable to CF. The comparison of FM transsexuals and controls showed that, on a masculinity scale, transsexuals scored higher than CF but were not different from CM. On the femininity scale, FM transsexuals rated themselves in between the two control groups: lower than CF but slightly higher than CM. The relations of secondary transsexuals' scores to CF and CM scores, on both masculine and feminine scales, were in the same direction as the primary transsexuals' scores. Secondary transsexuals rated themselves very similarly to their primary counterparts (the exception was a much higher score of MF-primary transsexuals than MF-secondary transsexuals on the femininity scale). Our study revealed that transsexualism does not imply a simple inversion of sex-role patterns: transsexuals differ not only from nontranssexual individuals of the same anatomical sex but also from those of the opposite sex. Moreover, MF transsexualism is not a mirror image of FM transsexualism: it constitutes a more extreme condition in the identification with feminine versus masculine personality traits. These differences seem to be universal for different countries and regions. The diagnostic value of our findings is discussed.

KEY WORDS: transsexualism; sex roles; gender identity; femininity; masculinity.

INTRODUCTION

When we describe a man as feminine, we mean that the individual has some attributes more typical of the other sex. In other words, his sex role is more feminine than that of other men. Thus, sex roles refer to those behaviors, attitudes, and personality traits that a society designates as masculine or feminine that are more "appropriate" for, or typical of, the male or female social role (Bailey, 1996).

It might seem obvious that transsexual individuals, whose gender identity is incongruent with their anatomical sex, identify with sex roles of the opposite sex. A simple prediction is that male-to-female (MF) transsexuals would be more feminine/less masculine than control men, whereas female-to-male (FM) transsexuals would demonstrate a more masculine/less feminine pattern than control women. However, if we consider that there exists strong social pressure toward behaviors that are compatible with one's anatomical sex, that prediction might be incorrect. Thus, the sex role of transsexuals might not fit well with that of the sex they identify with but, rather, it

[1]Department of Neurophysiology, Nencki Institute of Experimental Biology, Warsaw, Poland.
[2]Current address: Warsaw School of Advanced Social Psychology, Warsaw, Poland.
[3]Department of Sexology and Pathology of Human Relations, Medical Centre of Postgraduate Education, Warsaw, Poland.
[4]To whom correspondence should be addressed at Department of Neurophysiology, Nencki Institute of Experimental Biology, 3 Pasteur St., 02-093 Warsaw, Poland; e-mail: grabow@nencki.gov.pl.

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may share some characteristics of both sexes. Still another possibility is that transsexuals are more extreme in their sex-role identification compared to nontranssexuals of the sex they identify with. According to this, MF transsexuals could be expected to score more feminine and/or less masculine than control females and FM transsexuals more masculine and/or less feminine than control males.

Another interesting question is whether transsexualism in females is a mirror image of that in males with respect to sex-role patterns. This question is worth examination not only for theoretical reasons but also because it might have important consequences for clinical practice. The picture of MF transsexuals conveyed by the clinical literature differs from that of FM transsexuals (Blanchard, Steiner, & Clemmensen, 1985; Cohen-Kettenis & Gooren, 1999; Kuiper & Cohen-Kettenis, 1988; Landén, Wålinder, & Lundström, 1998; Pauly, 1974a, 1974b). FM transsexuals are reported to be better psychologically and socially adjusted, to have more stable professions, and to have more realistic expectations of sex reassignment surgery (SRS; Pauly, 1974a, 1974b). MF transsexuals are described as more hysteroid, more infantile, more often attempting suicide, and regretful of SRS. In consequence, the therapeutic effect of SRS is usually less positive in MF than in FM patients (Blanchard et al., 1985; Kuiper & Cohen-Kettenis, 1988; Landén et al., 1998).

Finding differences in various phenomenological aspects of male and female transsexualism validate the importance of searching for differences in personality traits exhibited by the two transsexual groups. Despite widespread clinical agreement that personality factors are important prognostic indicators of the success versus failure of sex reassignment (Bodlund, Kullgren, & Sundbom, 1993; Lindemalm, Körlin, & Uddenberg, 1987; Lothstein, 1982; Meyer-Bahlburg, 1993; Shore, 1984; Snaith, Tarsh, & Reid, 1993; Sundbom & Bodlund, 1999), few studies have systematically addressed this issue. An important aspect of this research is exploration of the sex-role identification pattern, that is, the way in which male and female transsexuals are masculine or feminine.

Studies that deal with this problem have used various techniques including the Minnesota Multiphasic Personality Inventory (MMPI; Collier, Cole, & O'Boyle, 1997; Fleming, Cohen, & Salt, 1981; Wålinder, 1967), sex-typed motor behavior (Barlow, Mills, & Agras, 1980), and projective techniques (Brems, Adams, & Skillman, 1993; Wålinder, 1967). These procedures are based on the assumption that masculinity and femininity are opposite ends of a unidimensional continuum. Since the early 1970s, this traditional view has undergone a major paradigmatic shift to a concept that masculinity and femininity are two distinct personality dimensions, which could be separately measured (Bem, 1974, 1981; Constantinopole, 1973; Spence & Helmreich, 1978). Following this approach, Bem (1974, 1981) developed the Bem Sex Role Inventory (BSRI) that contains two independent scales for these two domains. Very few researchers have applied the BSRI to transsexual populations (Fleming, Jenkins, & Bugarin, 1980; Fleming, MacGowan, & Salt, 1984; Skrapec & MacKenzie, 1981). Unfortunately, they considered either only one sex (Fleming et al., 1984; Skrapec & MacKenzie, 1981) or did not use control groups (Fleming et al., 1980). This prevented a direct comparison of possible differences between male and female samples.

The general picture that emerges from the studies that focused on sex-role identification in transsexuals is consistent: this group shows sex-typing characteristic of the opposite sex (Brems et al., 1993; Collier et al., 1997; Fleming et al., 1980, 1984; Skrapec & MacKenzie, 1981; Wålinder, 1967). Some authors, however, noticed an interesting difference between male and female populations, the former being more extreme (Collier et al., 1997; Fleming et al., 1980). These observations raise the question whether the sex-role pattern exhibited by transsexuals precisely adheres to the pattern stereotypically attributed to individuals of the opposite sex. Based on the above suggestions, one might expect the FM transsexuals to be more likely to incorporate aspects of their former roles into their new roles rather than totally reject them, the latter being characteristic of MF transsexuals. Our study aimed at exploring these predictions.

Another interesting issue investigated in this study was the possible regional variation in the phenomenon of transsexualism. In Poland (Godlewski, 1988; Herman-Jeglińska, Dulko, & Grabowska, 1997) and in other former communist countries (Cohen-Kettenis & Wålinder, 1987), a predominance of FM over MF transsexuals was found. This sex ratio contrasts with the predominance of MF over FM observed in most Western countries, including the USA (Cohen-Kettenis & Wålinder, 1987; Landén, Wålinder, & Lundström 1996; see Table I).

We wondered whether this difference might reflect some basic dissimilarities in the transsexual personality and attitudes due to different social conditions. Of particular interest to us was the question of whether sex-role patterns exhibited by Polish transsexuals differ from that exhibited by transsexuals in Western countries. We believe that the investigation of this problem may provide a better insight into the more general question of whether transsexualism in Central and Western European countries is the same condition, despite differences in sex ratio.

Table I. Annual Incidence of Transsexualism/100,000 Population Over 15 Years

Reference	Country (year of data collection)	Incidence	Sex ratio
Wålinder 1971	Sweden (1967–1970)	0.15	1:1
Landén et al., 1996	Sweden (1972–1992)	0.17	1.4:1
Van Kesteren et al., 1996	The Netherlands (1975–1992)	0.52	3:1
Ross et al., 1981	Australia (1976–1978)	0.58	5:1
Weitze & Osburg, 1996	Germany (l981–1990)[a]	0.21–0.24	2.3:1
Dulko, 2000 (unpublished)	Poland (1980–1998)	0.26	1:3.4

[a] Annual incidence of transsexualism/l00,000 adult population.

METHODS

Subjects

The study comprised 103 FM and 29 MF self-defined transsexuals who were patients of the Department of Sexology and Pathology of Human Relations, Medical Center for Postgraduate Education, Warsaw, Poland. All patients met the DSM-IV criteria for gender identity disorder (American Psychiatric Association, 1994). They were applicants for, but had not yet received, either hormonal therapy or sex-reassignment surgery at the time of psychological assessment.

Following one of the subdivisions of the transsexual population existing in the literature (Blanchard, 1985; Landén et al., 1998; see also Docter 1988, for a review), we classified transsexuals as primary versus secondary according to the typology used by Landén et al. (1998). Thus, a primary transsexual was a person with an aversion to their own birth sex and a strong sense of belonging to the opposite sex, tomboy or effeminate behavior present since early childhood, lack of sexual arousal when cross-dressing, being sexually attracted to the same anatomical sex, and having no fluctuations in gender dysphoria symptoms. The secondary group included conditions where, in addition to a strong sense of belonging to the opposite sex, behaviors bordering on transvestism (fetishistic cross-dressing) or a nonhomosexual (heterosexual or bisexual relationships, according to their anatomical sex) sexual orientation was reported. Sexual orientation was assessed in relation to the patient's birth sex with the Kinsey scale (Kinsey, Pomeroy, & Martin, 1948).[5]

Sixteen primary MF (MF-p), 82 primary FM (FM-p), 13 secondary MF (MF-s), and 21 secondary FM (FM-s) transsexuals met these criteria. Two control groups (303 females and 135 males) were college students of computer science and electronics, architecture, and medicine. All of them were exclusively heterosexual (0 on the Kinsey scale). Demographic data are provided in Tables II and III.

Sex-Role Assessment

The participants completed a Sex Role Inventory (Kuczyńska, 1992), which is a Polish analogue of the BSRI. It measures sex-role identification, that is, the degree to which one self-identifies with masculine and feminine characteristics. In accordance with Bem's gender schema theory, it describes a person not only on two separate measures, but also classifies them into one of four sex-role categories (feminine sex-typed, masculine sex-typed, androgynous, or undifferentiated). The questionnaire consists of 35 items, which are considered masculine, feminine, and neutral. There are 15 masculine items (e.g., self-reliant, independent, of good physical condition), 15 feminine items (e.g., affectionate, gentle, sensitive to the needs of others), and the remaining 5 are neutral (e.g., truthful, friendly). The subjects are not informed that these characteristics are gender related. They use a 5-point scale to indicate how well each of the traits describes themselves. The scale ranges from 1 (*never or almost never true*) to 5 (*always or almost always true*). The highest possible score on each of the measures (femininity or masculinity) is 75 and the lowest is 15.

According to the original median split method, each subject was categorized as feminine sex-typed (high on femininity and low on masculinity), masculine sex-typed (high on masculinity and low on femininity), androgynous (high on both scales), or undifferentiated (low on both).

RESULTS

Demographics

Table II contrasts groups of transsexuals on demographic data. In general, transsexuals reached secondary

[5] All primary transsexuals described themselves as "entirely homosexual," whereas in the secondary transsexual group rates varied from "predominantly homosexual with occasional heterosexual experience" to "entirely heterosexual." Most of our secondary FM transsexuals (16 out of 21) demonstrated "predominantly homosexual with occasional heterosexual experience" (5 on Kinsey scale) and all ever-married (3 out of 21) individuals showed "equal propensity" (3 on Kinsey scale). MF-s transsexuals showed the opposite; they mainly checked 3 (9 out of 13), then 5 (2 out of 13). In each secondary transsexual group, there was one "predominantly heterosexual with occasional homosexual experience" (1 on Kinsey scale) and one "entirely heterosexual" individual (0 on Kinsey scale).

Table II. Number of FM-p Transsexuals, MF-p Transsexuals, FM-s Transsexuals, and MF-s Transsexuals With Respect to Education, Marriage, and Parenting of Children

	Education				Marriage		
Group	Primary school	High school	University	Unknown	Unmarried	Divorced	Parenting of children
FM-p transsexuals ($n = 82$)	24	28	20	10	82	0	0
MF-p transsexuals ($n = 16$)	4	8	4	0	16	0	0
FM-s transsexuals ($n = 21$)	8	8	3	2	17	4	3
MF-s transsexuals ($n = 13$)	1	3	9	0	6	7	4

Note. Between group differences were as follows: for education: MF-s $\neq$ FM-p**, FM-s**, MF-p*; for marriage: FM-p $\neq$ FM-s***, MF-p$^{*}\neq$ MF-s**; for parenting of children: FM-p $\neq$ FM-s**, MF-p $\neq$ MF-s*. Significance levels are based on χ^2 test between contrasted groups. $^{*}p < .06$ (trend level); $^{**}p < .01$; $^{***}p < .001$.

education. The well-educated group was MF-s transsexuals, most of whom had completed a university degree. They differed significantly from FM-p and FM-s transsexuals, and at the trend level from MF-p transsexuals. All primary transsexuals were single, whereas 19% of FM-s transsexuals and 54% of MF-s transsexuals had been married. Comparisons of primary and secondary transsexuals were statistically significant, whereas the difference between secondary transsexual groups did not reach statistical significance. Data on parenting of children revealed a very similar pattern. There was no primary transsexual who had children, whereas among FM-s transsexuals there were 3 mothers (14%) and among MF-s transsexuals 4 fathers (31%). Comparisons between primary and secondary groups were statistically significant for FM transsexual groups and at trend level for MF transsexuals groups, whereas FM transsexuals and MF transsexuals did not differ from each other in both primary and secondary groups.

To compare age data, the Kruskall–Wallis test was used because of insufficient homogeneity of variance. The two control groups differed significantly from all transsexual groups, except MF-p transsexuals. Among transsexuals, the MF-s group was the oldest and significantly differed from the other groups (see Table III). Due to the lack of significant correlations between age and either the Femininity or the Masculinity scores in each of the control groups, age was not included in further analysis.

Table III. Means and Standard Deviations of Control Females, Control Males, FM-p Transsexuals, MF-p Transsexuals, FM-s Transsexuals, and MF-s Transsexuals With Respect to Age

	Age	
Group	Mean	*SD*
Control females ($n = 303$)	20.19	1.42
Control males ($n = 135$)	20.55	1.36
FM-p transsexuals ($n = 82$)	23.05	3.84
MFp transsexuals ($n = 16$)	21.81	3.76
FM-s transsexuals ($n = 21$)	24.81	5.49
MF-s transsexuals ($n = 13$)	35.92	10.64

Note. Between group differences were as follows: CF < CM**, FM-p***, FM-s***, MF-s***; CM < FM-p***, FM-s***, MF-s***; FM-p < MF-s***; MF-p < MF-s***; FM-s < MF-s***. Significance levels are based on Kruskall–Wallis test between contrasted groups. $^{**}p < .01$; $^{***}p < .001$.

Femininity/Masculinity Scales

Tables IV and V show the mean scores and *SD*s for each of six groups on the Masculinity and the Femininity scales, respectively. To evaluate the statistical significance of the between group differences, the Kruskall–Wallis test was used.

According to expectation, control males (CM) scored significantly higher than control females (CF) on the Masculinity scale, whereas the opposite was true for the Femininity scale. On the Masculinity scale, both groups of MF transsexuals rated themselves significantly lower than CM, but at a comparable level to CF, whereas both

Table IV. Means and Standard Deviations of Control Females, Control Males, FM-p Transsexuals, MF-p Transsexuals, FM-s Transsexuals, and MF-s Transsexuals on the Masculinity Scale

	Masculinity	
Group	Mean	*SD*
Control females ($n = 303$)	45.67	7.43
Control males ($n = 135$)	49.54	7.92
FM-p transsexuals ($n = 82$)	51.95	8.22
MF-p transsexuals ($n = 16$)	43.63	9.47
FM-s transsexuals ($n = 21$)	52.19	6.75
MF-s transsexuals ($n = 13$)	43.69	8.53

Note. Between group differences were as follows: CF < CM***, FM-p***, FM-s***; CM > MF-p***, MF-s**; FM-p > MF-p**, MF-s**; MF-p < FM-s**; FM-s > MF-s**. Significance levels are based on Kruskall–Wallis test between contrasted groups. $^{**}p < .01$; $^{***}p < .001$.

Table V. Means and Standard Deviations of Control Females, Control Males, FM-p Transsexuals, MF-p Transsexuals, FM-s Transsexuals, and MF-s Transsexuals on the Femininity Scale

	Femininity	
Group	Mean	*SD*
Control females ($n = 303$)	54.22	6.42
Control males ($n = 135$)	49.20	6.85
FM-p transsexuals ($n = 82$)	50.67	9.16
MF-p transsexuals ($n = 16$)	61.31	5.93
FM-s transsexuals ($n = 21$)	53.62	5.64
MF-s transsexuals ($n = 13$)	56.85	4.74

Note. Between group differences were as follows: CF > CM***, FM-p**; CM < FM-p***, FM-s**, MF-s***; FM-p < MF-p***, MF-s*; MF-p > CF***, FM-s***, MF-s*. Significance levels are based on Kruskall–Wallis test between contrasted groups. $^{*}p < .05$; $^{**}p < .01$; $^{***}p < .001$.

FM transsexual groups scored significantly higher than CF but similarly to CM. On the Femininity scale, both groups of transsexual males scored so high that they exceeded not only CM but also CF (a significant difference was found only for MF-p). In contrast, FM transsexuals rated themselves between the two control groups: lower than CF (significant difference was found for FM-p) and higher than CM (significant difference for FM-s). Same-sex comparisons between primary and secondary transsexuals revealed that, in general, they did not differ from each other except for MF-p and MF-s transsexual groups on the Femininity scale (MF-p scored higher).

Distribution of Sex Roles

Following Bem's original median split method, subjects were categorized as feminine sex-typed, masculine sex-typed, androgynous, or undifferentiated. The median values were 47 and 53 for the masculinity and the femininity measures, respectively. The distribution of sex roles is shown in Table VI.

The investigation of these data indicates that, although there is some overlap between the sex-role distribution for the two sexes (the result predicted by Bem gender scheme theory), control men fell mainly toward the masculine pole and control females toward the feminine pole. It is interesting to note that, among control females, there were more masculine sex-typed individuals than feminine sex-typed among control males.

Transsexual groups differed from both their control counterparts of the same birth sex and from those of the opposite one. The MF groups encompassed a higher number of feminine sex-typed individuals than did CF, and among them there were no masculine sex-typed individuals at all. On the other hand, in the FM transsexual groups, there was a higher representation of masculine sex-typed individuals than in CF, and a higher representation of feminine sex-typed than in CM. It is also worth noting that, among transsexuals, there was a higher number of androgynous and a lower number of undifferentiated individuals than among controls.

DISCUSSION

Our investigation shows that there exists an association between gender identity and sex role not only in our control subjects but also in transsexuals. Control females and control males primarily exhibited traits stereotypically attributed to their anatomical sex (i.e., the sex they identify with). Also, transsexual groups displayed sex roles congruent with their gender identity (but opposite to their anatomical sex). MF-p transsexuals scored more feminine and less masculine, whereas FM-p transsexuals scored more masculine and less feminine than their nontranssexual controls (i.e., individuals of the same anatomical sex).

The study provided additional findings that go beyond these expectations and deserve special consideration. Transsexuals not only differed from individuals of

Table VI. Numbers and Percent of Control Females, Control Males, FM-p Transsexuals, MF-p Transsexuals, FM-s Transsexuals, and MF-s Transsexuals on Sex-Role Categories

	Sex-role category			
Group	Feminine sex-typed	Masculine sex-typed	Androgynous	Undifferentiated
Control females ($n = 303$)	102 (34)	49 (16)	86 (28)	66 (22)
Control males ($n = 135$)	6 (4)	65 (48)	32 (24)	32 (24)
FM-p transsexuals ($n = 82$)	10 (12)	33 (40)	27 (33)	12 (15)
MF-p transsexuals ($n = 16$)	8 (50)	0	7 (44)	1 (6)
FM-s transsexuals ($n = 21$)	2 (10)	6 (28)	11 (52)	2 (10)
MF-s transsexuals ($n = 13$)	7 (54)	0	4 (31)	2 (15)

Note. Percentage values are in parentheses.

the same anatomical sex but also from those of the opposite sex. MF-p transsexuals scored much higher on the femininity scale and lower (though insignificantly so) on masculinity than CF. In contrast to this, FM-p transsexuals rated themselves only slightly higher than CM on masculinity and slightly higher (and not lower) than that group on femininity. The two transsexual groups, thus, differed as regards both the characteristics typical for their anatomical sex and for the sex they identify with. MF-p transsexuals were more extreme in their sex-role identification in relation to both the feminine and the masculine traits than the FM-p transsexuals.

Our data on the distribution of sex roles fit the above finding well. (1) In all groups, sex-role pattern was congruent with gender identity; among control males and FM transsexuals there was a predominance of masculine sex-typed individuals, whereas feminine sex-typed predominated among control females and MF transsexuals. (2) Anatomical males were more extreme in their sex-role stereotyping in comparison to anatomical females: among CM, there were less feminine sex-typed individuals than masculine sex-typed among CF. Among MF transsexuals, there were less masculine sex-typed individuals than feminine sex-typed among FM transsexuals.

The results of our investigation also show a lower number of undifferentiated individuals and a higher number of androgynous individuals among transsexuals than among controls. Both can be associated with the difficulties transsexuals face in the process of defining their gender identity. Their efforts to find a proper place in a society strictly dichotomized into two sex categories may strengthen the importance of gender role attributes in their self-perception and, thus, lead to a low number of undifferentiated individuals. On the other hand, unsolvable conflict between their own gender identity and social standards may result in the incorporation of both female and male personality traits and thus in androgyny.

The pattern of results that emerges from our study is in line with previous findings that focused on the relation of gender identity and sex roles in various transsexual populations: American (Fleming et al., 1980, 1984), Canadian (Skrapec & MacKenzie, 1981), and German (Arndt, Bosinski, & Wille, 1995). The Skrapec and MacKenzie (1981) study, (limited to males) revealed that MF transsexuals were either feminine sex-typed or androgynous. The research reported by Fleming et al. (1984) was limited to transsexual female samples and showed that transsexuals scored higher than control male group on the femininity scale, but there was no difference between the two groups on the masculinity scale. Both male and female transsexuals participated in another Fleming et al. (1980) study, which was the most methodologically similar to ours. The only difference was that the authors related their results to the original Bem normative data, whereas in our study control samples were tested. Their results demonstrated that FM transsexuals scored slightly higher on masculinity and significantly higher on femininity than Bem's males but they did not differ from that group as to the number of masculine sex-typed individuals. MF transsexuals rated themselves higher on femininity and lower on masculinity, and among them there were more feminine sex-typed individuals than among Bem's females. It is worth noting that, among MF transsexuals, there was only one masculine sex-typed individual (out of 55). Our observation is very similar in showing no masculine sex-typed individuals among 29 subjects.

A recently published paper (Lippa, 2001) also documented the more extreme sex-role identification in the MF than FM transsexuals on the Personal Attributes Questionnaire that, similarly to the BSRI, assesses sex-role characteristics based on self-ratings of gender-related personality traits. However, using another measure (Storms, 1979), where an individual had to self-assess how feminine and masculine she/he regarded herself/himself in personality, acts or behavior, Lippa (2001) found that FM transsexuals (in relation to control females), but not MF transsexuals (in relation to control males), were more extreme on both the masculinity and the femininity scales. These data suggest that those two measures of femininity and masculinity might be related to different aspects of gender-related traits and thus could complementarily be used for counseling and screening of transsexuals.

Many clinicians report that the process of gender reorientation is more successful in transsexual females than in transsexual males (Blanchard et al., 1985; Kuiper & Cohen-Kettenis, 1988; Landén et al., 1998). This may partially result from the fact that society, in general, is more agreeable with respect to women who dress and/or behave like men, than to men who behave like women (Hayes & Leonard, 1983). Many authors stress, however, the importance of personality factors (including the sex-role pattern) in the overall psychosocial adjustment of transsexuals to their new roles. The question is whether the acceptance of the traits attributed to the sex they identify with and/or rejection of the traits typical for their birth sex may facilitate this process. Our data indicate that MF, but not FM transsexuals, are those who reject, to a greater extent, traits stereotypically assigned to their anatomical sex. This suggests that a very low level of the traits typical for the former sex need not necessarily lead to good adjustment. It may rather constitute a condition that is associated with a poor outcome of sex reassignment. Similar arguments might also apply to the extent the transsexuals identify with the sex roles of the sex they identify with. Again,

the more extreme position in this respect shown by MF transsexuals (they score even more feminine than control females) may constitute an obstacle, and not a benefit, in their gender reorientation process (Lindemalm et al., 1987).

The question is why the exaggerated sex-role pattern in MF transsexuals produces difficulties in adjustment. Actually, male transsexuals may possess traits that are a mixture of masculine and feminine characteristics. To reach psychological integration in their new identity, they have to accept both. Thus, incorporating aspects of the transsexuals' former roles into their new roles and not totally rejecting them may be safer and may constitute a good predictor for successful sex reassignment. The clinical implication of this notion is that male and female transsexualism could require different treatment programs (Landén et al., 1998) that, for males, is more focused on the acceptance of not only female but also male personality characteristics.

Despite clinical differences between primary and secondary transsexuals, the two groups in our study are not very distinct from each other in respect to their sex-role identification. The only difference was that MF-p transsexuals rated themselves as more feminine than MF-s transsexuals. This finding might be at least partially explained by marital status and life experience. MF-s transsexuals are the oldest participants of this study, thus they lived longer in male roles. They are also more often involved in family life and the father's social role may require from them less feminine and/or more masculine behavior. The lack of differences between FM-p and FM-s transsexuals in age and gender-related traits might emphasize the discrepancy between the phenomenon of FM and MF transsexualism. It may also suggest that the primary/secondary classification for female transsexuals is not as relevant as this is for male transsexuals. Given the small sample of secondary transsexuals, these findings must be regarded as tentative. Further studies are needed to elucidate these questions.

To sum up, our study reveals that transsexualism does not imply a simple inversion of sex-role pattern: transsexuals differ not only from nontranssexual individuals of the same anatomical sex but also from those of the opposite sex. Moreover, MF transsexualism is not a mirror image of FM transsexualism: it constitutes a more extreme condition in sex-role identification. Differences in sex-related personality characteristics of female and male transsexualism seem to be universal for different countries and regions. Further studies are needed to learn more about a possible relationship between the transsexuals' masculine and feminine characteristics and treatment efficiency using various measures of gender traits. Sex-role identification may be an important factor in the prediction of the outcome of the gender reorientation process.

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